

Plex 7/25/2018 8:26 AM *dart.Tollis.Andrew*



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

**PURCHASE ORDER
PO040472**

E-MAILED
JUL 13 2018

Supplier:	MCM001-VU McMaster-Carr Supply Co, P.O. Box 7690 Chicago, IL 60680-7690 USA Phone: 330 995 5500 Fax: 330 995 9600	PO No:	PO040472
		PO Date:	7/12/18
		Due Date:	7/17/18
		Purchase Order Revision:	
		Revision Date:	
		Ship-To Contact:	Lavoie, Chantal Phone: clavoie@dartaero.com
Ship To:	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	Via:	Ground
		Pymt Terms:	2% 10 Net 30
		Freight Terms:	
		Special Comments:	

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	180704	90133A017	100/pk	Washer D3645-1 receive ea	Firmed	-	7/17/18	100 Ea	0 Ea	100 Ea	\$0.1033/Ea	\$10.33
2	180620	59915K274		Rod End Bearing D4777-1	Firmed	-	7/17/18	20 pcs	0 pcs	20 pcs	\$17.14/pcs	\$342.80
3		92865A221	5/pk	TBD	Firmed	-	7/17/18	10 Ea	0 Ea	10 Ea	\$8.362/Ea	\$23.52
4		2044T47	4 ft long	Tube Ø1.09	Firmed	-	7/17/18	16 ft	0 ft	16 ft	\$0.608/ft	\$9.68
Line Item Note 4 pcs of 4 ft.												
5		2044T67	50/pk	Cap Ø1.09 receive ea	Firmed	-	7/17/18	100 Ea	0 Ea	100 Ea	\$0.2056/Ea	\$23.54
6		30125T403	1/pk	Tum Buckle Body	Firmed	-	7/17/18	12 pcs	0 pcs	12 pcs	\$1.95/pcs	\$23.40
7		3896T31	50/pk	Ferule 1/16 X 3/8" - Aluminum	Firmed	-	7/17/18	500 Ea	0 Ea	500 Ea	\$0.1312/Ea	\$65.60
8		5051K431	5051K432 10' per length	Adhesive Felt Strip, 1 x 1/16	Firmed	-	7/17/18	10 ft	0 ft	10 ft	\$1.20/ft	\$12.00
9		5051K481	5051K482 10 ft length	Adhesive Felt Strip, 1.5 x 1/16	Firmed	-	7/17/18	10 ft	0 ft	10 ft	\$1.79/ft	\$17.90
10		51495K116	1/pk	COUPLING 1/2" NCKL PLTD BRASS	Firmed	-	7/17/18	35 Ea	0 Ea	35 Ea	\$7.78/Ea	\$272.30
11		75935A23	1 roll 15 ft	Tape, 0.045 x 1 x 22 w/Adhesive	Firmed	-	7/17/18	15 ft	0 ft	15 ft	\$2.444/ft	\$36.66
12		90128A263	100/pack	Socket Head Cap Screw, M6 X 1mm X 16mm	Firmed	-	7/17/18	100 Ea	0 Ea	100 Ea	\$0.1036/Ea	\$10.36
13		90592A028	100/pk	Hex Nut, Steel, M12 X 1.75mm	Firmed	-	7/17/18	100 Ea	0 Ea	100 Ea	\$0.1354/Ea	\$13.54
14		91247A593	25/pk	Hex Head Cap Screw	Firmed	-	7/17/18	25 Ea	0 Ea	25 Ea	\$0.2842/Ea	\$7.03
15		91255A626	25/pk	Socket Button Head Cap Screw	Firmed	-	7/17/18	25 Ea	0 Ea	25 Ea	\$0.3308/Ea	\$8.27

Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
16		91585A208	91585A829 5/pk	Dowel Pin M8 x 40mm receive ea	Firmed	-	7/17/18	55 Ea	55 Ea	JUL 18 2018	\$2.154/Ea	\$118.47
17		91590A117	10/pk	External Snap Ring .375	Firmed	-	7/17/18	50 Ea	0 Ea	JUL 18 2018	\$0.836/Ea	\$41.80
18		91595A034	50/pk	Dowel Pin, M2 X 20mm	Firmed	-	7/17/18	50 Ea	50 Ea	JUL 18 2018	\$0.2204/Ea	\$11.02
19		91595A142	25/pk	Dowel Pin Ø3mm x 40mm receive ea	Firmed	-	7/17/18	175 Ea	0 Ea	JUL 18 2018	\$0.386/Ea	\$67.55
20		92373A251	50/pk	Slotted Spring Pin receive ea	Firmed	-	7/17/18	100 Ea	100 Ea	JUL 18 2018	\$0.2148/Ea	\$21.48
21		9263K173	25/pk	O-Ring receive ea	Firmed	-	7/17/18	25 Ea	0 Ea	JUL 18 2018	\$0.3512/Ea	\$8.78
22		92905A225	25/pk	Extended Point Set Screw, Dog Point receive ea	Firmed	-	7/17/18	25 Ea	25 Ea	JUL 18 2018	\$0.3288/Ea	\$8.22
23		93190A373	1/pk	Hex Bolt 316 Stainless Steel Hex Head Screw 1/pack	Firmed	-	7/17/18	45 Ea	0 Ea	JUL 18 2018	\$3.84/Ea	\$172.80
24		93800A400	100/pk	Hex Nut, Nylon, M3 x 0.5	Firmed	-	7/17/18	100 Ea	100 Ea	JUL 18 2018	\$0.1212/Ea	\$12.12
25		94355A227	50/pk	TBD 18-8 Stainless Steel Flat-Tip Set Screw	Firmed	-	7/17/18	50 Ea	0 Ea	JUL 18 2018	\$0.096/Ea	\$4.80
26		95245A178	1/pk	Threaded Rod, M20 X 1.5mm X 100mm	Firmed	-	7/17/18	2 Ea	0 Ea	JUL 18 2018	\$37.08/Ea	\$74.16
27		97431A310	100/pk	Snap Ring receive ea	Firmed	-	7/17/18	100 Ea	100 Ea	JUL 18 2018	\$0.0534/Ea	\$5.34
28		98543A114	100/pk	E-Clip, Ø7-9mm Shaft	Firmed	-	7/17/18	100 Ea	100 Ea	JUL 18 2018	\$0.0545/Ea	\$5.45
29		98750A483	1/pk	Threaded Rod 1/2-20 UNF x 4" receive ea	Firmed	-	7/17/18	10 Ea	0 Ea	JUL 18 2018	\$2.25/Ea	\$22.50
30		C2-9-3	92185A196 25/pk	Clock Spring Cover Screw	Firmed	-	7/17/18	200 Ea	0 Ea	JUL 18 2018	\$0.1356/Ea	\$27.12
31		M6061T6TR1.5X1.0W125	6546K999	6061-T6 Rect Tube 1.5 X 1.0 X .125W : MATERIAL: 6061-T6 OR 6061-T651/T6510/T6511/T62 RECTANGULAR TUBING PER AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR PER AMS-QQ-A-200/8 OR AMS 4160 receive ft	Firmed	-	7/17/18	24 ft	24 ft	JUL 18 2018	\$5.8333/ft	\$140.00
32		SWA3-700	9529K15 100/per pk	Ball Bearing	Firmed	-	7/17/18	500 Ea	500 Ea	JUL 18 2018	\$0.1056/Ea	\$52.80
33		91732A236	5/pk	Helicoil Insert	Firmed	-	7/17/18	5 Ea	5 Ea	JUL 18 2018	\$1.104/Ea	\$5.52
												Grand Total: \$1,676.86

Order Notes

Order Notes

Procurement Quality Clauses

A005 RIGHT OF ENTRY
A016 PERSONNEL QUALIFICATION
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A032 DOCUMENT SPECIAL REQUIREMENTS
A033 STATEMENT OF CONFORMITY/TEST RECORDS FOR NAS, AN and MS FASTENERS
A040 NOTIFICATION OF QUALITY ESCAPE
A041 QUALITY MANAGEMENT SYSTEM
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENTS

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/12/18 3:23 PM *dart.lavoie.chantal*



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO040472
Order Placed By
Chantal Lavoie

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07/18/2018

McMaster-Carr Number
6233053-04

Line	Product	Ordered	Shipped
31	6546K999 Extruded 6061-T6 Aluminum Rectangle Tubing, 1" X 1.5" X .125" Wall, 6' Length with Mtr, ** AMS-Qq-A-225/8 or AMS 4117/4128/4115/4116 **, ** or Per AMS-Qq-A200/8 or AMS 4160 ** <i>HT:23075640 * as marked on material AY</i>	24 Feet	24

Shipped separately from our Cleveland warehouse on 07/13

1	90133A017 Oil-Resistant Neoprene Rubber Sealing Washer for Number 10 Screw Size, 0.17" ID, 0.5" OD	1 Pack	1
2	59915K274 Corrosion-Resistant Ball Joint Rod End, 3/8"-24 Thread, Right Hand	20 Each	20
3	92865A221 Medium-Strength Grade 5 Steel Hex Head Screw, Zinc-Plated, 3/8"-24 Thread Size, 2" Long, Fully Threaded	2 Packs	2
4	2044T47 Round Cut-to-Length Shipping Tube, 1.09" ID, 48" Inside Length	4 Each	4
5	2044T67 End Caps for 1.09" ID Round Cut-to-Length Shipping Tube	2 Packs	2
7	3896T31 Wire Rope Compression Sleeve for 1/16" Rope Diameter - Not for Lifting	10 Packs	10
8	5051K431 F1 Felt Strip, Firm, Adhesive Backing, 10 Feet Long, 1" Wide, 1/16" Thick	1 Each	1
9	5051K481 F1 Felt Strip, Firm, Adhesive Backing, 10 Feet Long, 1-1/2" Wide, 1/16" Thick	1 Each	1
10	51495K116 Nickel-Plated Brass Push-to-Connect Tube Fitting for Air, Straight Connector, for 1/2" Tube OD	35 Each	35
11	75935A23 3M VHB Foam Tape - Adhesive on Both Sides, #4950, 1" Width x 5 Yards Length, .045" Thick	1 Each	1
12	90128A263 Zinc-Plated Alloy Steel Socket Head Screw, M6 x 1 mm Thread, 16 mm Long	1 Pack	1
13	90592A028 Steel Hex Nut, Medium-Strength, Class 8, M12 x 1.75 mm Thread	1 Pack	1

Packing List

200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO040472
Order Placed By
Chantal Lavoie
McMaster-Carr Number
6233053-04

Page 2 of 3
07/18/2018

Line	Description	Ordered	Shipped
14	91247A593 Medium-Strength Grade 5 Steel Hex Head Screw, Zinc-Plated, 5/16"-18 Thread, 2-1/2" Long, Partially Threaded	1 Pack	1
15	91255A626 Button Head Hex Drive Screw, Black-Oxide Alloy Steel, 3/8"-16 Thread, 1-1/4" Long	1 Pack	1
16	91585A829 18-8 Stainless Steel Dowel Pin, 8mm Diameter, 40mm Long	11 Packs	11
17	91590A117 External Retaining Ring, 15-7 PH Stainless Steel, for 3/8" OD	5 Packs	5
18	91595A034 Alloy Steel Dowel Pin, 2mm Diameter, 20mm Long	1 Pack	1
19	91595A142 Alloy Steel Dowel Pin, 3mm Diameter, 40mm Long	7 Packs	7
20	92373A251 18-8 Stainless Steel Slotted Spring Pin, 3/16" Diameter, 1" Long	2 Packs	2
21	9263K173 Chemical-Resistant Viton Fluoroelastomer O-Ring, 2 mm Wide, 9 mm ID	1 Pack	1
22	92905A225 Alloy Steel Extended-Tip Set Screws, M6 x 1 mm Thread, 30 mm Long	1 Pack	1
24	93800A400 Nylon Hex Nut, M3 x 0.5 mm Thread, Off-White	1 Pack	1
25	94355A227 18-8 Stainless Steel Flat-Tip Set Screws, 10-24 Thread, 1/2" Long	1 Pack	1
26	95245A178 Grade B7 Medium-Strength Steel Threaded Rod, M20 x 1.5 mm Thread Size, 100 mm Long	2 Each	2
27	97431A310 Side-Mount External Retaining Ring, Black-Phosphate Steel, for 5/16" OD	1 Pack	1
28	98543A114 Side-Mount External Retaining Ring, Black-Phosphate Steel, for 7-9 mm OD	1 Pack	1

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200 Aurora Industrial Pkwy
Aurora OH 44202-8087
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6233053-04

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07/18/2018

Line	Description	Ordered	Shipped
29	98750A483 Grade B7 Medium-Strength Steel Threaded Rod, 1/2"-20 Thread Size, 4" Long	10 Each	10
30	92185A196 Super-Corrosion-Resistant 316 Stainless Steel Socket Head Screw, 8-32 Thread Size, 5/8" Long	8 Packs	8
32	9529K15 Hardened 440C Stainless Steel Ball, 1/4" Diameter	5 Packs	5
33	91732A236 18-8 Stainless Steel Helical Insert, 1/2"-20 Right-Hand Thread, 3/4" Long	1 Pack	1

Shipped separately from our New Jersey warehouse on 07/13

23	93190A373 Super-Corrosion-Resistant 316 Stainless Steel Hex Head Screw, 3/8"-24 Thread Size, 3" Long, Fully Threaded	45 Packs	45
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Expected to ship

6	30125T403 Closed-Body Aluminum Turnbuckle, Hook-to-Hook, 90 lbs. Capacity	12 Each	12 Jul 18-25
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DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. M6061-T6 TR REV. A SHEET 1 OF 1
DATE 02.12.04		TITLE 6061-T6 RECTANGULAR TUBING SCALE NTS
A	02.12.04	NEW ISSUE

RELEASED
02.12.04

PURCHASE MATERIAL: (6061-T6) (OR 6061-T6S1/T6S10/T6S11/T62) RECTANGULAR TUBING
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
PER (AMS-QQ-A-200/8) (OR AMS 4160)

PART NUMBER:

M6061 T6 TR | H.H | X | B.B | W TTT |

HEIGHT | WIDTH | WALL

WHERE H.H = HEIGHT IN INCHES
B.B = WIDTH IN INCHES
TTT = WALL THICKNESS IN MIL

EG. 4" X 2" X 0.125" WALL = M6061 T6 TR 4.0 X 2.0 W125

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176 TIR.5X10W125 PO / BATCH NO.: P0040472/5095912
 DATE: 18/07/25

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 24'
 QUANTITY INSPECTED: 24'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .125"
 THICKNESS RECEIVED: .125"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>AMS-QQ-A-300/8</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>P0040472</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/07/25</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

Sapa

Sapa Industrial Extrusions
1550 KIRBY LANE:
SPANISH FORK, UT
84660-1349

Certified Inspection Report

Sales Order Number	1101335960	Line No.	1	Customer P/O	4500859471-1
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Cert Number	SAPA2815686	Page	1 of 2
Cert Creation Date	10-Feb-18	Cert Print Date	10-Feb-18

Ship To Customer

RYERSON PROCUREMENT CORP
PO BOX 91601
--

Invoice To Customer

RYERSON PROCUREMENT CORP
PO BOX 91601
--

LUBBOCK, TX - 79490
2580 TECHNOLOGY DR
--

Ship To Customer

RYERSON PROCUREMENT CORP
2580 TECHNOLOGY DR
--

ELGIN, IL - 60123

Applicable Specifications, Revisions and Exceptions

141: McMaster

COMPOSITION NOTE: The values for 'Others Each' and 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

Legal Statement

We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and mechanical properties shown on the face of this certification. Also, note that mercury is not a nominal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certificate may not be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Quantities per Lot / Packages

Lot Number	Quantity	UOM	Weight
23075640	144	PC'S	Gross 579
23075640	144	PC'S	Net 573

Alloy	Si	Fe	Cu	Mn	MB	Cr	Zn
6061	Min 0.40	Max 0.60	Min 0.15	Max 0.40	Min 0.80	Max 1.20	Min 0.25

Item Description	Specification
Extruded Hollow Rect. Tube	ASTM B221 REV 14
1.000 H x 1.500 W x 0.125 WALL.	ASME SB221/ASME B96.1
72.5 IN L.N.	AMS QQ-A-200/8
FIN M-MILL.	ASME B96.1
W/H .661 H 14.0 CS 1.8	ASME B96.1
6061/T6	ASME B96.1
Marking CONTINUOUS;	ASME B96.1

10-Feb-18

10-Feb-18

Signature And Title
 Steven Tanner Quality Manager

sapa:**Certified Inspection Report**

Sapa Industrial Extrusions

1550 KIRBY LANE

SPANISH FORK, UT

84660-1349

Sales Order Number	Line No.
1101335960	1

Cert Number	SAPA2815686
Cert Creation Date	10-Feb-18
Customer PO	4500859471-1

Alloy	Ti		Others Each		Others Total	
	Min	Max	Min	Max	Min	Max
6061	0.15	0.20	0.05	0.15	0.91	0.15

Composition Results

Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Total
Min	0.68	0.27	0.20	0.06	0.91	0.04	0.02	0.02	Others Each
S18070208	0.68	0.27	0.20	0.06	0.91	0.04	0.02	0.02	Others Total

Mechanical Property - Test Limits

Test Type	UTS - L		UTS - L		UTS - L		UTS - L		UTS - L	
	UOW	KSI	UOW	KSI	UOW	KSI	UOW	KSI	UOW	KSI
# of Test										
Test Temper	Lot Number	# of Tests	MIN Value	MAX Value						
16	23075640	2	44.8	44.9	41.0	41.1	8.5	8.6	14.0	14.1

Cert Notes

Products manufactured with a T6511 temper also meet T6 temper requirements.

Yield strength has been determined by the 0.2% offset method

All bulk finish alloys produced at Sapa Extrusions Inc comply with Directive 2011/65/EU (RoHS 2) with the exception of 6262 alloy

All bulk finish alloys produced at Sapa Extrusions Inc comply with Directive 2011/65/EU (RoHS 2)

In accordance with EIN 10204 Inspection Certificate Type 3.1

Melted in the USA or Qualifying Countries (as defined in Defense Federal Acquisition Regulation Supplement (DFARS) Section 225.872-1)

Produced in the United States

Manufactured in the United States